

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-94 (cancelled)

Claim 95 (currently amended): A stent for holding open a blood vessel formed of a structure consisting essentially of a plurality of triangular cells, each triangular cell comprising:

a first loop containing section, the first loop containing section arranged generally in the circumferential direction,

a second loop containing section, the second loop containing section arranged generally in the circumferential direction and joined to the first loop containing section at a first junction; and

a third loop containing section joined to the first loop containing section at a second junction and joined to the second loop containing section at a third junction;

wherein a plurality of first loop containing sections form a first band of loops which repeat at a first frequency and a plurality of second and third loop containing sections form a second band of loops which repeat at a second frequency different from said first frequency, said first and second bands alternating for at least three consecutive repetitions along the longitudinal axis of the stent wherein each ~~triangular~~ cell is formed of two loops at the first frequency and three loops at the second frequency.

Claim 96 (previously presented): A stent according to claim 95, wherein the first loop containing section is relatively adapted to enable radial support, and the second and third loop containing sections are relatively adapted to enable longitudinal flexibility.

Claim 97 (currently amended): A stent according to claims 95 ~~or 96~~, wherein the first loop containing section has wider legs than the second and third loop containing sections.

Claim 98 (previously presented): A stent according to claim 95, wherein the first frequency is lower than the second frequency.

Claim 99 (previously presented): A stent according to claim 95, wherein the first loop containing section has one free loop.

Claim 100 (previously presented): A stent according to claim 95, wherein the stent comprises Nitinol.

Claim 101 (previously presented): A stent according to claim 95, wherein the stent is made of stainless steel.

Claim 102 (currently amended): A stent according to claims 95 ~~or 96~~, wherein each cell in the stent encompasses the same area.

Claim 103 (currently amended): A stent according to claims 95 ~~or 96~~, wherein the cell is arranged so that when expanded a length of the cell along a circumference of the stent is longer than a length of a cell along the longitudinal axis of the stent.

Claims 104-124 (withdrawn)

Claim 125 (currently amended) A uniformly flexible expandable stent ~~comprising a plurality of enclosed flexible spaces, each of the plurality of enclosed flexible spaces~~ consisting essentially of a plurality of triangular cells, each triangular cell including:

- a) a first member having a first end and a second end;
- b) a second member having a first end and a second end;
- c) a third member having a first end and a second end;
- d) a fourth member having a first end and a second end; the first end of the first member communicating with the first end of the second member, the second end of the second member communicating with the second end of the third member, and the first end of the third member communicating with the first end of the fourth member;
- e) the first member and the second member with the curved portion at their ends forming a first loop;
- f) the third member and the fourth member with the curved portion at their ends forming a second loop;
- g) a fifth member having a first end and a second end;
- h) a sixth member having a first end and a second end;

i) a seventh member having a first end and a second end;

j) an eighth member having a first end and a second end;

k) a ninth member having a first end and a second end; and

l) a tenth member having a first end and a second end, the first end of the fifth member coupled to the second end of the first member, the second end of the fifth member communicating with the second end of the sixth member, the first end of the sixth member communicating with the first end of the seventh member, the second end of the seventh member communicating with the second end of the eighth member, the first end of the eighth member communicating with the first end of the ninth member, the second end of the ninth member communicating with the second end of the tenth member, and the first end of the tenth member coupled to the second end of the fourth member;

m) the fifth member and the sixth member with the curved portion at their ends forming a third loop;

n) the seventh member and the eighth member with the curved portion at their ends forming a fourth loop; and

o) the ninth member and the tenth member with the curved portion at their ends forming a fifth loop, such that the first and the fourth members are joined together through the fifth, the sixth, the seventh, the eighth, the ninth and the tenth members without connection directly between first and fourth members.

Claim 126 (previously presented) The stent of claim 125, wherein the first member, the third member, the sixth member, the eighth member, and the tenth member have substantially the same angular orientation to the longitudinal axis of the stent and the second member, the fourth member, the fifth member, the seventh member, and the ninth member have substantially the same angular orientation to the longitudinal axis of the stent.

Claim 127 (currently amended) The stent of claim 125, wherein at least one of the members in at least one of the plurality of ~~spaces~~ cells has a length that is greater than the length of the other members in that ~~space~~ cell.

Claim 128 (currently amended) The stent of claim 125, wherein at least one of the first, second, third, and fourth members in at least one of the plurality of ~~spaces~~ cells has a length that is longer than the length of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members in that ~~space~~ cell.

Claim 129 (currently amended) The stent of claim 128, wherein at least one of the first, second, third, and fourth members in at least one of the plurality of ~~spaces~~ cells has a length that is about twice the length of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members in that ~~space~~ cell.

Claim 130 (currently amended) The stent of claim 125, wherein at least one of the first, second, third and fourth members in at least one of the plurality of ~~spaces~~ cells has a length that is substantially equal to the length of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members in that ~~space~~ cell.

Claim 131 (currently amended) The stent of claim 125, wherein the first, second, third, and fourth members in at least one of the plurality of ~~spaces~~ cells have a width that is different than the width of the fifth, sixth, seventh, eighth, ninth, and tenth members in that ~~space~~ cell.

Claim 132 (currently amended) The stent of claim 131, wherein the first, second third, and fourth members in at least one of the plurality of ~~spaces~~ cells have a width that is greater than the width of the fifth, sixth, seventh, eighth, ninth, and tenth members in that ~~space~~ cell.

Claim 133 (currently amended) The stent of claim 125, wherein at least one member in at least one of the plurality of ~~spaces~~ cells has a width that is greater than the other members in that ~~space~~ cell.

Claim 134 (currently amended) The stent of claim 127, wherein at least the member having the greatest length in the ~~space~~ cell is joined to an adjacent member which extends in an adjacent ~~space~~ cell.

Claim 135 (previously presented) The stent of claim 125, wherein a substantial portion of each of the members is substantially straight.

Claim 136 (previously presented) The stent of claim 125, wherein the members are comprised of metal.

Claim 137 (previously presented) The stent of claim 136, wherein the metal is selected from the group consisting of stainless steel and Nitinol.

Claim 138 (previously presented) The stent of claim 125, wherein the first, second, third, and fourth members and the fifth, sixth, seventh, eighth, ninth, and tenth members are provided with different flexibilities with respect to each other.

Claim 139 (previously presented) The stent of claim 138, wherein the first, second, third, and fourth members are more flexible than the fifth, sixth, seventh, eighth, ninth, and tenth members.

Claim 140 (currently amended) The stent of ~~claims~~ claim 138, wherein the fifth, sixth, seventh, ~~eight~~ eighth, ninth, and tenth members are more flexible than the first, second, third, and fourth members.

Claim 141 (previously presented) The stent of claim 125, wherein at least one portion of at least one of the first, second, third, and fourth members and at least one portion of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members are provided with different flexibilities with respect to each other.

Claim 142 (previously presented) The stent of claim 141, wherein at least one portion of at least one of the first, second, third, and fourth members is provided with at least one portion that is more flexible than at least one portion of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members.

Claim 143 (previously presented) The stent of claim 141, wherein at least one portion of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members is provided

with at least one portion that is more flexible than at least one portion of at least one of the first, second, third, and fourth members.

Claim 144 (previously presented) The stent of claim 125, wherein the first, second, third, and fourth members and the fifth, sixth, seventh, eighth, ninth, and tenth members are provided with different resistances to radial compression with respect to each other.

Claim 145 (previously presented) The stent of claim 144, wherein the first, second third, and fourth members have a greater resistance to radial compression than the fifth, sixth, seventh, eighth, ninth, and tenth members.

Claim 146 (currently amended) The stent of ~~claims~~ claim 144, wherein the fifth, sixth, seventh, eighth, ninth, and tenth members have a greater resistance to radial compression than the first, second, third, and fourth members.

Claim 147 (previously presented) The stent of claim 125, wherein at least one portion of at least one of the first, second, third, and fourth members and at least one portion of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members are provided with different resistances to radial compression with respect to each other.

Claim 148 (previously presented) The stent of claim 147, wherein at least one portion of at least one of the plurality of the first, second, third, and fourth members is provided with at least one portion that has a greater resistance to radial compression than at least one portion of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members.

Claim 149 (previously presented) The stent of claim 147, wherein at least one portion of at least one of the fifth, sixth, seventh, eighth, ninth, and tenth members is provided with at least one portion that has a greater resistance to radial compression than at least one portion of at least one of the first, second, third and fourth members.

Claim 150-159 (cancelled)

Claims 160-183 (cancelled)

Claim 184 (currently amended): A uniformly flexible stent for holding open a blood vessel ~~comprising~~ consisting of triangular cells, said cells consisting essentially of:

- a. a first loop containing section, said first loop containing section arranged generally in a circumferential direction, occurring at a first amplitude;
- b. a second loop containing section, said second loop containing section arranged generally in the circumferential direction, also occurring at said first amplitude;
- ~~c. at least one of said first and second loop containing sections formed of a single, continuous, generally curvilinear pattern; and~~
- ~~d.-c.~~ c. a third loop containing section, said third loop containing section arranged generally in the circumferential direction occurring at a second amplitude lower higher than said first amplitude, ~~disposed in the generally circumferential space between said first and second loop containing sections and alternately joined to said first and second loop containing sections, wherein~~ each cell is formed of said third loop containing

~~section comprises three two loops of said third loop containing section for every two and three loops of said first and second loop containing sections, said first, second and third loop containing sections forming a plurality of uniformly flexible cells and alternating curvilinear patterns;~~

wherein a plurality of said first and second loop containing sections together form first single, continuous, undulating bands around the circumference of the stent, and a plurality of said third loop containing sections form second single, continuous, undulating circumferential bands, one of said second bands disposed in the circumferential space between each first band and alternately joined to said first bands.

Claim 185 (previously presented): A stent according to claim 184, wherein the second loop containing section of each cell forms at least one loop facing toward the interior of the cell.

Claim 186 (previously presented): A stent according to claim 185, wherein the third loop containing section forms one loop facing toward the interior of the cell.

Claim 187 (previously presented): A stent according to claim 184, wherein the stent is made of stainless steel.

Claim 188 (previously presented): A stent according to claim 184, wherein the stent is made of Nitinol.

Claim 189-194 (cancelled)

Claim 195 (currently amended): Stent for widening a vessel in a human body comprising:

a plurality of first circumferential bands each being a single curvilinear undulating pattern of loops at a first frequency;

a plurality of second circumferential bands each being a single curvilinear undulating pattern of loops at a second frequency higher than said first frequency, consecutively alternating for at least five repetitions with said first circumferential bands with no intervening material and periodically coupled to the adjacent first bands to form cells;

wherein the first circumferential bands comprise even first circumferential bands each containing a pattern of loops and odd first circumferential bands each containing a pattern of loops which are out of phase with the loops of the even first circumferential bands, an odd first circumferential band occurring between every two even first circumferential band;

wherein the second circumferential bands occur between every even first circumferential band and odd first circumferential band; and

wherein a first circumferential band occurs at each end of the stent.

Claim 196-200 (cancelled).